

Claims

What is claimed is:

- 1 1. A method for the autonomic configuration of cable speeds in a computing
2 environment, the method comprising:
 - 3 reading a cable identifier of an interconnection cable connecting
4 components in the computing environment;
 - 5 storing the cable identifier of the interconnection cable in a software object
6 within the computing environment; and
 - 7 adjusting port speeds of components connected by the interconnection
8 cable based on the cable identifier.
- 1 2. The method of claim 1, wherein the method is triggered upon system bring-up.
- 1 3. The method of claim 1, wherein the method is triggered during run time when the
2 interconnection cable becomes active.
- 1 4. The method of claim 1, wherein the cable identifier contains the length of the
2 associated interconnection cable.
- 1 5. The method of claim 1, wherein the cable identifier contains the type of the
2 associated interconnection cable.
- 3 6. The method of claim 4, wherein the step of adjusting port speeds of components
4 connected by the interconnection cable based on the cable identifier further
5 comprises the steps of:
 - 6 determining the maximum port speeds of each of the components
7 connected by the interconnection cable;

8 translating the cable length of the associated interconnection cable to a
9 maximum effective transmission speed for the cable;

10 if the maximum port speed of any of the components connected to the
11 interconnection cable is less than the maximum effective transmission
12 speed of the cable, adjusting the port speed of the components to the
13 lowest maximum port speed of the components; and

14 if the maximum port speed of all of the components connected to the
15 interconnection cable is greater than or equal to the maximum effective
16 transmission speed of the cable, adjusting the port speed of the
17 components to the maximum effective transmission speed of the cable.

- 1 7. The method of claim 4, wherein one or more pins on the interconnection cable
2 connector are jumpered to a first voltage supply and, in conjunction with bias
3 resistors on the connected components, create the cable identifier.

- 1 8. The method of claim 1, wherein at least one of the components is a logically
2 partitioned computer system.

- 1 9. The method of claim 1, wherein at least one of the components is an I/O
2 enclosure.

- 1 10. A computer-readable program stored on a computer-readable medium, said
2 computer readable program being configured to perform the steps of:
 - 1 reading a cable identifier of an interconnection cable connecting
2 components in the computing environment;
 - 3 storing the cable identifier of the interconnection cable in a software object
4 within the computing environment; and
 - 5 adjusting port speeds of components connected by the interconnection
6 cable based on the cable identifier.
- 1 11. The computer-readable program of claim 10, wherein the method is triggered
2 upon system bring-up.
- 1 12. The computer-readable program of claim 10, wherein the method is triggered
2 during run time when the interconnection cable becomes active.
- 1 13. The computer-readable program of claim 10, wherein the cable identifier contains
2 the length of the associated interconnection cable.
- 1 14. The computer-readable program of claim 13, wherein the step of adjusting port
2 speeds of components connected by the interconnection cable based on the
3 cable identifier further comprises the steps of:
 - 4 determining the maximum port speeds of each of the components
5 connected by the interconnection cable;
 - 6 translating the cable length/type of the associated interconnection cable to
7 a maximum effective transmission speed for the cable;

8 if the maximum port speed of any of the components connected to the
9 interconnection cable is less than the maximum effective transmission
10 speed of the cable, adjusting the port speed of the components to the
11 lowest maximum port speed of the components; and

12 if the maximum port speed of all of the components connected to the
13 interconnection cable is greater than or equal to the maximum effective
14 transmission speed of the cable, adjusting the port speed of the
15 components to the maximum effective transmission speed of the cable.

- 1 15. The computer readable program of claim 13, wherein additional pins on the
2 interconnection cable connector are jumpered to a first voltage supply and, in
3 conjunction with bias resistors on the connected components, create the cable
4 identifier.
- 1 16. The method of claim 10, wherein at least one of the components is a logically
2 partitioned computer system.
- 1 17. The method of claim 10, wherein at least one of the components is an I/O
2 enclosure.